

Amendments to the Claims

1. (currently amended) A method for controlling transmittance of light as a function of the intensity of the light (saturable absorption function) by the step of providing a film in the path of the light where ~~A carbon nanotube-dispersed polyimide saturable absorber excellent in an optical quality, obtainable by mixing a carbon nanotube dispersion liquid comprising~~ the film comprises a mixture of a carbon nanotube, an amide-based polar organic solvent, and a nonionic surfactant and/or a polyvinylpyrrolidone (PVP) with a mixture solution of a solvent-soluble , and polyimide and an organic solvent.

2. (currently amended) The saturable absorber method according to claim 1, wherein the carbon nanotube is a single-walled carbon nanotube.

3. (currently amended) The saturable absorber method according to claim 1, where the mixture is formed from a carbon nanotube dispersion liquid having a solvent, the solvent being an amide-based polar organic solvent comprises comprising ~~comprises~~ N-methylpyrrolidone (NMP) and/or dimethylacetamide.

4. (currently amended) The ~~saturable absorber~~ method according to claim 1, where the nonionic surfactant is a polyoxyethylene surfactant.

5. (currently amended) The ~~saturable absorber~~ method according to claim 1 ~~3~~, where the content of the nonionic surfactant is 0.005 to 5% by weight in the carbon nanotube dispersion liquid.

6. (currently amended) The ~~saturable absorber~~ method according to claim 1 ~~3~~, where the content of the polyvinylpyrrolidone (PVP) is 0.1 to 10% by weight in the carbon nanotube dispersion liquid.

7. (currently amended) A method for controlling transmittance of light as a function of the intensity of the light (saturable absorption function) by the step of providing a film in the path of the light where ~~A carbon nanotube-dispersed polyimide saturable absorber,~~ the film being obtained by a method comprising the steps of:

mixing a carbon nanotube dispersion liquid comprising a carbon nanotube, an amide-based polar organic solvent, and a nonionic surfactant and/or a polyvinylpyrrolidone (PVP) with a

mixture solution of a solvent soluble polyimide and an organic solvent; and

removing the solvent.

8. (withdrawn) A method for producing a saturable absorber, comprising the steps of:

dispersing a single-walled carbon nanotube in a mixture solution of an amide-based polar organic solvent and a nonionic surfactant under intensive stirring;

mixing the resultant dispersion liquid with a polyimide mixed organic solvent; and

removing the solvent.

9. (currently amended) The method ~~for producing a saturable absorber~~ according to claim 7, the ~~obtained single-walled~~ carbon nanotube dispersion liquid is treated with a filter having a retaining particle size of 0.1 to 3.0 μm to obtain a dispersion liquid comprising fine particles of the ~~single-walled~~ carbon nanotube.

10. (withdrawn) A method for producing a saturable absorber, comprising the steps of:

dispersing a single-walled carbon nanotube in a mixture solution of an amide-based polar organic solvent and a nonionic surfactant under intensive stirring;

mixing a polyvinylpyrrolidone (PVP) therewith;

mixing the resultant dispersion liquid with a polyimide mixed organic solvent, and

removing the solvent.

11. (new) The method according to claim 7 where said carbon nanotubes being single walled carbon nanotubes.